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The desmid flora of Nantucket

JOSEPH AUGUSTINE CUSHMAN

The island of Nantucket, from its location some little distance off the coast of Cape Cod, and its many large ponds, seems to be worthy of an investigation in the line of its microscopic flora. It is essentially a sandy soil that characterizes the island, and according to previous work on this group of plants a rich flora was not expected, loose sandy soil usually not being rich in desmids compared to a rocky region. The ponds of the island are open to the sunlight in all their parts, for trees are not a Nantucket characteristic. They are therefore well lighted in the shallow water from which the collections here worked up were taken. For an opportunity to study the contents of these ponds and swamps I have to thank several members of the Nantucket Maria Mitchell Association who very willingly undertook the task of collecting from the various ponds of the island. In all nearly fifty bottles of material were collected, from the last of April to the first week of June being the range of dates. The whole number of species (over fifty) may not seem very large, but many of the forms were very common and well scattered over the island. Certain of the forms are new to the New England flora and such are starred.

MESOTAENIUM Näg. 1849

M. MACROCOCCUM (Kütz.) Roy & Biss. Lat. 18 μ: long. 38 μ. Gibb's Pond.

CYLINDROCYSTIS Menegh. 1838

C. BREBISSONII Menegh. Long. 50 μ: lat. 18 μ. Tom Never's Pond.

C. BREBISSONI MINOR W. & G. S. West. Long. 32 μ: lat. 12 μ. Great Miox's Pond.

NETRIUM Näg. 1849

N. DIGITUS (Ehrenb.) Itzigs. & Rothe. Long. 99–186 μ: lat. med. 34–65 μ: apex 14–21 μ. Gibb's Pond, Wigwam Pond, Almanac Pond.

PENIUM Bréb. 1844

* P. PHYMATOSPORUM Nordst. Long. 35–40 μ: lat. 15.5–16.5 μ: lat. isthm. 13.5 μ. Tom Never's Pond, pond near Old North Cemetery.

CLOSTERIUM Nitzsch. 1817

C. COSTATUM Corda. Long. 280 μ: lat. 26 μ: apex 9 μ. Almanac Pond. Small.

C. STRIOLATUM Ehrenb. Long. 200–450 μ: lat. 18–32 μ: apex 10 μ. Bog pond near Old North Cemetery; also Almanac, Pest House and Squam Ponds.

C. INCURVUM Bréb. Long. 62 μ: lat. 11 μ. Gibb's and Almanac Ponds.

C. VENUS Kütz. Long. 80 μ: lat. 10 μ. Wigwam, Pest House and Squam Ponds.

C. LEIBLEINII Kütz. Long. 112–190 μ: lat. 19–34 μ: apex 3.5–5 μ. Hummock and Copaum Ponds.

C. MONILIFERUM (Bory) Ehrenb. Long. 225 μ: lat. 46 μ. Pest House Pond.

C. ACEROSUM ELONGATUM Bréb. Long. 500 μ: lat. 37 μ: apex 5 μ. Lily Pond Ditch.

* C. LUNULA INTERMEDIUM Gutw. Long. 440 μ: lat. 65 μ: apex 12 μ. Gibb's Pond.

C. ABRUPTUM West. Long. 200 μ: lat. 15.5 μ: apex 6 μ. Gibb's Pond.

C. DECORUM Bréb. Long. 375 μ: lat. 25 μ: apex 8.5 μ. Gibb's Pond.

C. SETACEUM Ehrenb. Long. 235 μ: lat. 6 μ. Almanac Pond.

PLEUROTAENIUM Näg. 1849

P. EHRENBERGII (Bréb.) DeBary. Long. 38 μ: lat. bas. 25 μ: apex 20 μ. Wigwam and Almanac Ponds.

P. TRABECULA (Ehrenb.) Näg. Long. 400 μ: lat. 37 μ: apex 24 μ. Gibb's Pond.

TETMEMORUS Ralfs. 1844

T. GRANULATUS (Bréb.) Ralfs. Long. 146 μ: lat. 34 μ. Wigwam and Almanac Ponds.

T. LAEVIS (Kütz.) Ralfs. Long. 70–90 μ: lat. 21–22 μ. Lily Pond Ditch; Copaum and Tom Never's Ponds.

EUASTRUM Ehrenb. 1832

E. DIDELTA (Turp.) Ralfs. Long. 125 μ: lat. 65 μ: lat. lob. pol. 26 μ: isthm. 18 μ. Gibb's Pond.

E. AFFINE Ralfs. Long. 112 μ: lat. 68 μ: lob. pol. 28 μ: isthm. 19 μ. Wigwam Pond.

E. PINNATUM Ralfs. Long. 100 μ. Wigwam Pond.

E. ABRUPTUM forma MINOR W. & G. S. West. Long. 25–33 μ: lat. 22 μ: lob. pol. 14 μ: crass. 14 μ: isthm. 4.5 μ. Gibb's and Wigwam Ponds.

E. OBLONGUM (Grev.) Ralfs. Long. 160–170 μ: lat. 72–84 μ: lob. pol. 45–47 μ: isthm. 20–23 μ. Hummock Pond and pond near Old North Cemetery.

E. BINALE Ehrenb. Long. 19 μ: lat. 15.5 μ: lob. pol. 13 μ: isthm. 3.8 μ. Wigwam and Tom Never's Ponds.

* E. FISSUM W. & G. S. West, forma. Long. 40 μ: lat. 33 μ: isthm. 6 μ. Wigwam Pond.

E. ELEGANS (Bréb.) Kütz. Long. 43–48 μ: lat. 30–32 μ; lob. pol. 24–25 μ: isthm. 8 μ. Gibb's and Tom Never's Ponds; also pond near Old North Cemetery.

MICRASTERIAS Ag. 1827

M. TRUNCATA (Corda) Bréb. Long. 95 μ: lat. 87 μ: lob. pol. 65 μ: isthm. 22 μ. Squam Pond.

M. AMERICANA RECTA Wolle. Long. 115 μ: lat. 90 μ: lob. pol. 56 μ: isthm. 28 μ. Pond near Old North Cemetery.

COSMARIUM Corda. 1834

C. ORNATUM Ralfs. Long. 34–48 μ: lat. 34–36 μ: isthm. 11–12 μ. Wigwam and Copaum Ponds.

C. AMOENUM Bréb. Long. 47 μ: lat. 25 μ. Wigwam and Almanac Ponds.

C. TAXICHONDRUM Lund. Long. 44 μ: lat. 42 μ: isthm. 12.5 μ. Wigwam Pond.

C. CONNATUM Bréb. Long. 59 μ: lat. 43 μ: isthm. 40 μ. Almanac Pond.

* C. PHASEOLUM forma ELEVATUM Nordst. Long. 32 μ: lat. 25 μ: isthm. 8 μ. Great Miox's Pond.

C. PYRAMIDATUM Bréb. Long. 78–100 μ: lat. 50–62 μ: isthm.

15–16 μ. Bog pond near Old North Cemetery; Copaum and Tom Never's Ponds.

* C. BIREMUM Nordst. Long. 13 μ; lat. 12 μ. Wigwam and Tom Never's Ponds.

C. INTERMEDIUM Delp. Long. 48 μ: lat. 42 μ: isthm. 14 μ. Reedy Pond.

* C. EXIGUUM Arch. Long. 23–24 μ: lat. 13 μ: isthm. 3–3.5 μ. Copaum Pond; also pond near Old North Cemetery.

* C. GRANATUM SUBGRANATUM Nordst. Long. 21–23 μ: lat. 16–17 μ: isthm. 3.5–4.5 μ. Copaum, Great Miox's and Reedy Ponds.

C. MENEGHINII Bréb. Long. 19 μ: lat. 15 μ: isthm. 4 μ. Great Miox's Pond.

XANTHIDIUM Ehrenb. 1834

X. ANTILOPAEUM (Bréb.) Kütz. Long. c. spin. 71 μ: s. sp. 46 μ: lat. c. sp. 71 μ: s. sp. 46 μ: isthm. 14 μ. Almanac Pond.

ARTHRODESMUS Ehrenb. 1838

A. OCTOCORNIS Ehrenb. Long. c. sp. 25 μ: s. sp. 14 μ: lat. c. sp. 22 μ: s. sp. 14.5 μ: isthm. 4 μ. Almanac and Pest House Ponds.

A. INCUS (Bréb.) Kütz. Long. s. sp. 25 μ: lat. c. sp. 84 μ: s. sp. 22 μ: isthm. 7 μ. Tom Never's Pond.

STAURASTRUM Meyen. 1829

S. MACROCERUM Wolle. Long. 46 μ: lat. c. proc. 86 μ: s. proc. 22 μ. Wigwam Pond.

S. STRIOLATUM Näg. Lat. 28 μ. Wigwam Pond.

* S. DISTENTUM Wolle. Lat. c. proc. 34 μ. Pest House Pond.

S. LEWISII Wood. Long. c. sp. 38 μ: s. sp. 19 μ: lat. c. sp. 34 μ: s. sp. 15.5 μ: isthm. 4 μ. Almanac and Wigwam Ponds.

S. PYGMAEUM Bréb. Long. 35 μ: lat. 31 μ: isthm. 10 μ. Gibb's Pond.

S. RAVENELII Wood. Lat. c. sp. 50 μ: s. sp. 45 μ: isthm. 14 μ. Great Miox's and Pest House Ponds.

SPHAEROZOSMA Corda. 1835

S. EXCAVATUM Ralfs. Long. cell. 7.5 μ: lat. 7 μ: isthm. 3.5 μ. Wigwam Pond.

ONYCHONEMA Wallich. 1860

* O. SERRATUM (Bail.) Stokes. Long. c. proc. 24 μ: s. proc. 15.5 μ: lat. c. proc. 25 μ: s. proc. 19 μ: isthm. 3.5 μ. Wigwam Pond.

DESMIDIUM Ag. 1824

D. SWARTZII Ag. Lat. filament 37 μ. Wigwam Pond.

GYMNOZYGA Ehrenb. 1840

G. MONILIFORMIS Ehrenb. Lat. filament 27 μ. Wigwam Pond.

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